Enclosure No.	Description	Decision (Release, partial release, withhold)	Information withheld	Explanation of redactions	Clause	Date of top email in each enclosure.
1	Email from Scottish Water with Water Update Report	Release	Names and email addresses	Personal Information	11(2)	05 June 2023
1.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
2	Email to Scottish Water with letter seeking support in delivering private water supply emergency scheme	Release	Names and email address	Personal Information	11(2)	05 June 2023
2.1	Attachment – Letter to Dame Susan Rice regarding the private water supply emergency scheme	Release				05 June 2023
3	Email from Scottish Water - Water Update Report	Release	Names and email addresses	Personal Information	11(2)	12 June 2023
3.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
4	Emails between SG and SW on water scarcity briefing lines	Release	Names and email addresses	Personal Information	11(2)	15 June
4.1	Attachment with suggested water scarcity briefing lines	Release	Names	Personal information	11(2)	
5	Emails between SG and SW asking for information on the bottled water scheme	Release				15 June 2023
6	Email from SW on possible need for WSO and assessment of water scarcity impact to public supply	Release	Names and email addresses	Personal Information	11(2)	15 June 2023
6.1	Scottish Water Response to	Release				

		1	1	1	1	
	Queries from the Scottish					
	Government Following SGoR(M)					
	Meeting 8 th June 2023					
7	Email from Scottish Water Water Update Report	Release	Names and email addresses	Personal Information	11(2)	16 June 2023
7.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
8	Emails between SG and SW on severe water	Partial release	Names and email addresses	Personal Information	11(2)	17 June 2023
	scarcity at Broadford in Skye		Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
9	Email from SW with briefing lines for Cab Sec on water scarcity session with MSPs	Release	Names	Personal information	11(2)	19 June 2023
9.1	Attachment Parliamentary session and statement on water scarcity – Brief for Ms McAllan and Scottish Water	Release				
10	Email from Scottish Water Water Update Report	Release	Names and email addresses	Personal Information	11(2)	19 June 2023
10.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
11	SW seeking confirmation of details of Cab Sec call with MSPs on water scarcity	Release	Names and email addresses	Personal Information	11(2)	20 June 2023
12	Emails between SW and SG with briefing lines regarding Broadford water scarcity	Partial release	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	20 June 2023
13	Email from SW with water	Release	Names and email addresses	Personal Information	11(2)	22 June 2023

	demand and					
	drought update					
13.1	Attachment – Demand and	Partial release	Names	Personal Information	11(2)	
	Drought Update		Includes site specific information regarding critical national infrastructure, drought measures and sources.	National Security	10(5a)	
14	Email from SW with initial assessment for possible water shortage orders	Release	Names and email addresses	Personal Information	11(2)	23 June 2023
14.1	Attachment Water Shortage Orders – Drought Risk Assessment	Partial Release	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
15	Email from Scottish Water with Water Update Report	Release	Names and email addresses	Personal Information	11(2)	23 June 2023
15.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
16	Scottish Water - water demand and drought update to SG	Release	Names and email addresses Includes site specific information regarding critical national infrastructure, drought measures and sources.	Personal Information National Security	11(2) 10(5a)	27 June 2023
16.1	Attachment – Demand and Drought Update	Partial release	Names Includes site specific information regarding critical national infrastructure, drought measures and sources.	Personal Information National Security	11(2) 10(5a)	
17	Email from SG to water shortage order working group members with draft policy proposals	Release	Names and email addresses	Personal Information	11(2)	27 June 2023
17.1	Attachment – Water Shortage Order Policy Proposals	Release				
18	Email from Scottish Water with Water Update Report	Release	Names and email addresses	Personal Information	11(2)	30 June 2023
18.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national	National security risk	10(5a)	

			infrastructure, drought measures and sources.			
19	Email from SW with SGoRR briefing lines	Release	Names and email addresses	Personal Information	11(2)	5 July 2023
19.1	Attachment – SW 3 minute brief for SGoRR	Partial release	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
20	Email from Scottish Water with Water Update Report	Release	Names and email addresses	Personal Information	11(2)	07 July 2023
20.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
21	Email from SW with water demand and drought update	Release	Names and email addresses	Personal Information	11(2)	11 July 2023
21.1	Attachment – Demand and Drought Update	Partial release	Names Includes site specific information regarding critical national infrastructure, drought measures and sources.	Personal Information National Security	11(2) 10(5a)	
22	Email with minutes from meeting with SW on water shortage orders	Release	Names and email addresses	Personal Information	11(2)	
22.1	Attachment – Water Shortage Order Meeting Minutes					
23	Email from Scottish Water with Water Update Report	Release	Names and email addresses	Personal Information	11(2)	14 July 2023
23.1	Scottish Water – Water Update Report	Withhold	Site specific information regarding critical national infrastructure, drought measures and sources.	National security risk	10(5a)	
24	Email from SW with water demand and drought update	Release	Names and email addresses	Personal Information	11(2)	19 July 2023
24.1	Attachment – Demand and Drought Update	Partial release	Names Includes site specific information regarding critical national infrastructure, drought measures and sources.	Personal Information National Security	11(2) 10(5a)	

Enclosure 1 - Scottish Water - Water Update Report - 02/06/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **80%** (down 4% from last week). There are [redated] sites in drought trigger [redacted].

Regards

[redacted]

1.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 2 - Email from Cabinet Secretary for Net Zero and Just Transition private office to Scottish Water

Good afternoon,

Please find attached a letter from Màiri McAllan MSP, Cabinet Secretary for Net Zero and Just Transition.

Many thanks

[redacted]

Enclosure 2.1 - Letter to Dame Susan Rice from Màiri McAllan MSP, Cabinet Secretary for Net Zero and Just Transition

Scottish Government

Riaghaltas na h-Alba

gov.scot

Cabinet Secretary for Net Zero and Just Transition Mairi McAllan MSP

T: 0300 244 4000 E: scottish.ministers@gov.scot

Dame Susan Rice

5 June 2023,

Dear Susan,

Emergency funding for local authorities dealing with private water supply sufficiency issues

Since 2018, there has been a recurring need to supply households on private water supplies (PWS) with emergency assistance due to water scarcity. Although there has only been a small number of reports that supplies have run dry this year, SEPAs most recent water scarcity report has placed the north and south of the country into 'early warning' with the expectation that this alert level may increase if rainfall remains low over the summer. For these reasons, the Scottish Government has agreed that it will fund the costs for the provision of emergency supplies.

I should be grateful if Scottish Water would work with my officials and local authorities to put in place emergency assistance to provide bottled water to those households whose private water supplies run dry because of water scarcity. My officials will work directly with all Enviornmental Health Departments to share advice, guidance and communications materials and will also confirm the arrangements for submitting grant application forms.

A copy of this letter goes to all Local Authority Leaders.

Yours sincerely,

MÀIRI MCALLAN

Enclosure 3 - Scottish Water - Water Update Report - 09/06/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **77%** (down 3% from last week). There are [redacted] sites in drought trigger [redacted].

Regards [redacted]

3.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 4 - RE: Cabinet Secretary hosted briefing for MSPs on water scarcity, 1600 Tuesday 20 June

Hello,

Brining two email chains into one and cc'ing [redacted]. Ahead of Tuesday's parliamentary session and given we don't have much time, I thought it would be best to share our work in progress.

Attached is a copy of the lines that went to FM today. I've added some comments for Scottish Water attention in blue which relate the bullets below.

For COP **Monday 19th June** we are required to send the following to the Cab Sec, Ms McAllan:

- Contribution to opening statement for the parliamentary session being held on Tuesday 20th June. This will be 5 minutes and will include other contributions. Ours is relatively short. No need for too much detail here as Peter and [redacted] will provide that.
- 2. Lines to contribute to a parliamentary statement on water scarcity to be held on the 30th June ahead of summer recess, which will provide MSPs with an update on the situation on the ground and action to minimise the impacts.
- 3. Q&A for the parliamentary session (questions Ms McAllan may be asked)

I've have created a first draft for bullets 1 to 3 for comment (attached). I'll need some assistance populating the answers but have given it a go based on some of the lines I already have. Please feel free to delete/add questions.

I'll be back in the office on Monday but realise this doesn't provide much time for your input, hence my late email now. [redacted] is available tomorrow and has still to contribute.

Thanks for all you help so far!

[redacted]



[redacted]

From: <[redacted]@scottishwater.co.uk>
Sent: 15 June 2023 10:16
To: <[redacted]@gov.scot>; <[redacted]@SCOTTISHWATER.CO.UK>
Cc: <[redacted]@gov.scot>
Subject: RE: Cabinet Secretary hosted briefing for MSPs on water scarcity, 1600 Tuesday
20 June

Many thanks [redacted]. I spoke to Peter yesterday about this, so he is aware and now the date and time is set, he will no doubt response directly to the email below.

Regards

[redacted] [redacted]

SW Public General From: <[redacted]@gov.scot> Sent: 15 June 2023 10:09 To: <[redacted]@scottishwater.co.uk>; <[redacted]@SCOTTISHWATER.CO.UK> Cc: [redacted]@gov.scot Subject: FW: Cabinet Secretary hosted briefing for MSPs on water scarcity, 1600 Tuesday 20 June

EXTERNAL MAIL - Think Before You Click

Hi [redacted]

Please see below – as promised an update on the briefing to Parliament on water scarcity.

[redacted] is preparing a contribution on water supplies for Ms McAllan's speech plus Q&A. We'll share those with you, Peter and [redacted] so there is a seamless handover.

Regards

[redacted]

From: Deputy Director Environmental Quality and Resilience <DDEQR@gov.scot> **Sent:** 14 June 2023 18:55

To: Harley, David <david.harley@sepa.org.uk>; 'Peter.Farrer@scottishwater.co.uk' <Peter.Farrer@scottishwater.co.uk>; [redacted]@scottishwater.co.uk' <[redacted]@scottishwater.co.uk>

Cc: Deputy Director Environmental Quality and Resilience <DDEQR@gov.scot>; <[redacted]@gov.scot>; Rathjen J (Jon) <Jon.Rathjen@gov.scot>; <[redacted]@gov.scot>; <[redacted]@gov.scot>; <[redacted]@gov.scot>; <[redacted]@sepa.org.uk> **Subject:** Cabinet Secretary hosted briefing for MSPs on water scarcity, 1600 Tuesday 20 June

Dear David, Peter and [redacted]

Many thanks for agreeing to participate next week in a briefing for MSPs on water scarcity hosted by Ms McAllan.

The meeting will take place at 16:00 on Tuesday 20 June via Teams. A calendar invite will follow tomorrow.

In terms of format, Ms McAllan will speak for 5 minutes before passing to you to speak for around 5-7 minutes each on the current situation and mitigation actions in place. There will then be time for Q&A.

Do let us know if you have any questions

Alice

August 2023

Alice Hall/Emma Harding (job share) | Deputy Director, Environmental Quality & Resilience | Environment & Forestry | The Scottish Government | 3-H (South) Victoria Quay | Edinburgh EH6 6QQ

Alice Hall Working pattern: Monday - Wednesday Mob: [redacted]

Emma Harding Working pattern: Wednesday - Friday Mob: [redacted]

Email: DDEQR@gov.scot

Enclosure 4.1 – Water Scarcity lines that went to the First Minister for SGoRR

Background

- 1. The Scottish Environment Protection Agency (SEPA) National Water Scarcity Plan (NWSP) published in 2014, and updated in 2020, sets out how water resources will be managed prior to and during periods of prolonged dry weather.
- 2. The risk of water scarcity is categorised at four levels Early Warning, Alert, Moderate Scarcity and Significant Scarcity - with Significant being the level at which SEPA considers temporary suspension of licences to abstract water from the environment. In 2022 water levels fell to such a point that, in line with the NWSP, SEPA suspended 175 abstraction licences for the first time. Unusually low rainfall in recent weeks and future projections mean SEPA expect the situation this year to be more acute.
- 3. Climate change projections for the UK generally predict that changes in rainfall patterns will lead to more frequent dry summers and low river flows. This will not be felt uniformly across the UK, with eastern areas (including eastern Scotland) likely to be particularly affected. A new temperature record was set in 2022 with 35.8C recorded in Charterhall in the Scottish Borders the latest statistic in a trend where 10 of our warmest years on record have all occurred since 1997. The UK Met Office now project the heat experience in 2022 as a 1 in 4 annual event. And reviews undertaken by Scotland's Centre of Expertise on Climate Change and Centre of Expertise on Water indicate that Scotland is likely to experience significantly more frequent, more severe and longer droughts in the coming decades. Whilst it is predicted that winters will become wetter, this is not expected to be sufficient to make up for lower summer rainfall.
- 4. We are responding to climate risk through our Climate Adaptation Programme, which brings together government action across more than 170 policies and proposals, including water management, that are collectively building climate resilience in Scotland.
- 5. The 2022 Programme for Government stated that the Scottish Government would work with SEPA, abstractors and others to ensure the right strategic approach to water scarcity was in place to build on lessons from last summer.

Actions from the SGoR on 8 June

- Ms McAllan has written to MSPs inviting them to a factual briefing on water scarcity on Tuesday 20 June. Ms McAllan will give a short introduction before handing over to officials from Scottish Water and SEPA to give an update and take questions. [I am contributing to Ms McAllan's opening statement and have provided some suggested lines and questions for Scottish Water's consideration which covers the next bullet].
- 6. A request has also been made for a statement by Ms McAllan to Parliament before recess providing an update on the situation on the ground and action to minimise the impacts. A GIQ has been suggested as an alternative. A draft statement and accompanying briefing is being prepared and will be finalised next week given the evolving picture. [The lines for the above will be used for this].

Current situation and mitigation action

2. SEPA's water scarcity report issued on 16 June shows that all of Scotland is now affected by water scarcity – see extract from the report at Annex A. Some rain is forecast but it is not sufficient to change the situation which is likely to worsen. A forward looking picture of which areas are likely to move into significant scarcity through June and July is provided at annex B.

Public and private water supplies

- 3. The majority of the current challenges on the public water supply relate to increased demand pressures as a result of the recent period of warm, dry weather. In terms of water resources, as of 12 June there were [redacted] systems in drought trigger at the lower risk levels. Should the current weather pattern continue over the coming weeks, this number will increase although is not expected to compromise supplies on our larger systems. However, should there be a drought event which extends beyond the worst historic drought for any system, additional measures through Water Shortage Orders may be required later in the summer.
- 4. For a number of smaller systems with direct abstractions from small water courses, the impact of prolonged, dry weather is likely to be experienced earlier. In these instances, supplies will be maintained through operational response measures such as tankering.
- 7. Drinking Water is treated to ensure that it is fit for human consumption. Low water levels and high temperatures may impact quality and make it harder to treat. It is possible that impacts on quality such as the instance of brown water as seen in parts of Lanarkshire in the Summer of 2021 may be seen again. Scottish Water are monitoring the situation closely though it is not always possible to predict exactly which reservoirs will experience quality issues. [Need further comment regarding this statement? This was put together with Sue and [redacted] but need Scottish Water contribution for the wider parliamentary statement. Bearing in mind it may not even be included but good to have it ready nonetheless].
- 5. In recent weeks we have received a number of reports of private water supplies running dry due to the prolonged dry weather. The emergency bottled water scheme has been established and Scottish Water are working with local authorities to provide bottled water to those who need it. Reports have been received from 100's of households across Scotland running dry with South Ayrshire being most affected.
- 6. Local authorities work closely with affected households and measures are in place to support vulnerable users, such as delivering bottled water directly to homes. In previous years, local and regional resilience partnerships have supported local authorities in achieving this and stand by to support once again if required.'

Water availability for businesses

7. In 2022 relatively few catchments were affected by scarcity and later in the year (from late July). Broadly SEPA took a blanket approach in implementing their National Water Scarcity Plan (NWSP) and suspended all abstraction licences under the criteria set out in the NWSP (175 in total). SEPA exempted non-consumptive licences (where water is returned a short distance downstream) from suspension and

also excluded those licences taking from groundwater sources. Following discussions with SG, SEPA took direction from ministers to exempt 7 additional licences. These were allowed to continue to abstract a small volume, which was allocated (by Ministers) to the abstractor(s) thought to be most affected by the suspension of licences.

- 8. In 2023 SEPA plan to take the lessons learned from 2022 and apply an approach designed to make best use of water available in catchments for businesses whilst safeguarding ecological harms. They have adopted the exclusion criteria applied to good effect last year and will exclude from suspension those abstractors with minimal environmental impact (non-consumptive use or groundwater).
- 9. SEPA have identified scope to allow very small-scale abstraction to continue on larger rivers – this volume will be allocated equally between all licence-holders on the river, ensuring no sector or individual is advantaged over another. However, as last year, ministers have the ability to direct SEPA to take a different approach should they want the limited amount of water available to be directed to particular sectors, including in response to requests from sectors or individuals to do so. Further advice on how ministers could chose to issue directions and respond to requests to do so is being prepared.
- 10. SEPA expect 107 abstraction licences to be affected in June across a range of industry sectors; agriculture, distilleries, fish hatcheries, golf, mining and quarrying (see Annex B). The fish hatchery and distillery sites are likely to be excluded from suspension in line with SEPA's published criteria. Of the remaining licences, staff are currently calling abstractors and collating information on the abstractions, and recording feedback on the impact of suspension on the business. The final number suspended will depend on how many abstractions meet the exclusion criteria. Calls are complete for Poolewe and Canonbie areas, with one licence suspension likely for a dye works in Dumfries by 18/6/23. The operator is looking at mitigation and/or alternative sources. Work to make calls in the Overlee, Glenmeanie, Luss and Airyhemming areas is underway.
- 11. The most significant impact will be on those businesses abstracting for agricultural irrigation, particularly into July. For crops, the biggest impact of limits on surface water extraction is on potatoes. The area in Ayrshire which moved to moderate scarcity typically grows early varieties and these should be harvested or will be very soon, but the middle of Scotland which includes Perth, includes some of our biggest potato producers. Ware crops will be irrigated from rivers, and in some so will seed crops. Without this, the yields will be low and potato crops will likely succumb to common scab. Annex C shows a map highlighting Scotland's areas suitable for cropping.
- 12. These areas are also where we have most of our soft fruit growers. The proposal by SEPA is that a given volume of extraction will be permitted along a water course. This will then be split amongst all users. This level should be enough for our soft fruit growers, but it will unlikely be sufficient for our potato growers. The hope is that users will facilitate amongst themselves how to use their allocation of water most effectively. The Farm Advisory Service (FAS) may be able to assist in this. Our brassica and pea growing areas do not appear to have been moved into the moderate category yet.
- 13. NFUS surveyed their horticulture members and found that 67% of respondents had plans to invest this year in water resource infrastructure, typically lagoons. NFUS do not believe these respondents have progressed plans yet, but in any case lagoons

would need to be built in Autumn for filling over the winter, and it is likely there wasn't enough time between the shortages last year and the optimal time for building to make a difference for this year. Respondents felt that barriers to investment were lack of knowledge of AECS (Agri-Environment Climate Scheme) funding and where they did know about it they felt it was too low.

Environmental impacts

14. As this stage SEPA have not had reports of any acute ecological impacts such as fish mortality and smaller watercourses drying up. This is to be expected, since very few rivers have yet passed the low flow threshold beyond which the river ecology becomes increasingly sensitive to further flow reductions. If dry conditions continue, the number of rivers passing this threshold, and hence the likelihood of acute ecological harms, will start to increase over the next one to two weeks. Three of the four low-flow-linked fish mortalities in 2018 occurred around this threshold. It is not generally the low flow *per se* that kills fish but high temperatures and or/low oxygen levels, so warm weather increases the risk (oxygen content reduces as water temperature increases).

Communications

- 15. Scottish Government news team continues to work closely with partner agencies through formal structures including the regular water scarcity communications stakeholder group as well as more informally
- 16. SG has been deferring to partner agencies to lead operational communications. However, SG news issued a statement on behalf of the FM following the SGoRR on 8th June and remains prepared to offer further proactive opportunities to Ministers as the situation requires. Partner agencies are prepared for this and are actively considering potential suitable media visit opportunities on a dynamic basis.
- 17. Cabinet Secretary has indicated she may wish to issue a proactive statement following her meeting on 20 June.
- 18. SEPA have been communicating regularly with the public and with abstraction licence holders. This has included:
 - a. a program of social media content, that is shared and amplified by partners;
 - media partnerships with both print and digital adverts, native articles, advertorials and e-shots with Scottish Farmer, Scottish Licensed Trade News, Hotel Scotland, The Dram and Whisky Mag;
 - c. features on Scotland's Farm Advisory Service (FAS) (Rural Roundup) podcast.
 - d. Following the publication of last week's Water scarcity report, a news release to communicate the increased water scarcity risk across the country and provided interviews to seven news outlets including BBC and STV.
 - e. Further planned stakeholder engagement and communication includes further direct mail to be issued on 15 June to all licenced abstractors to encourage water to be managed wisely and signpost to guidance and support tools; additional print and digital adverts, native articles, and advertorials with

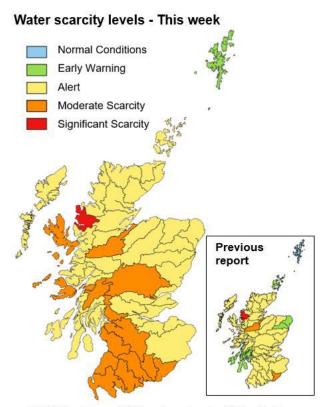
Scottish Farmer, Scottish Licensed Trade News, Hotel Scotland, The Dram and Whisky Mag from 19 June and an article in Scottish Farmer in print for issue available at Royal Highland Show; on-going program of social media and news releases to support stakeholder engagement around changing water scarcity risk across the country.

Scottish Water [activity to be updated Friday by [redacted]

Longer term actions

- 19. Alongside work underway to manage the impacts of scarcity this summer, we are supporting research to build the evidence base on how best to tackle scarcity in the future. Research includes identifying evidence needs to support future action, modelling risks and vulnerabilities to improve forecasting, building resilience to future water scarcity (e.g. improved soil health to mitigate the need for irrigation, developing drought and heat tolerant crops), and social research to develop ways for remote coastal communities and users of private water supplies to adapt to water scarcity.
- 20. SEPA are planning a consultation to further update the National Water Scarcity Plan in the autumn. The policy development for a potential Water and Sewerage Bill also provides an opportunity to look at the broader issue of water management and sustainable water usage for business and household use.
- 21. Legislation for water shortage orders (WSOs) on the public water supply, such as hosepipe bans, exists in the Water Resources (Scotland) Act 2013. The legislation is old and doesn't reflect the need to adapt to climate change. It also fails to reflect that water scarcity develops very quickly as it takes several weeks for Scottish Water to be able to implement a water shortage order. Policy proposals to modernise the legislation for water use restrictions is underway.

Annex A – Extract from SEPA water scarcity report (16 June 2023)



 $@{\sf SEPA}.$ Some features of this information are based on digital spatial data licensed from the Centre for Ecology and Hydrology @ NERC (CEH). Contains OS data @ Crown copyright [and database right].

Annex B – Impact on abstraction licences

Table 1 Licences which already in Significant or forecast to reach Significantduring June

DRAT station	Date expected to	Agricultural	Agriculture	Distillery	Fish	Golf	Mining and	Navigation	Other	Total	Numbers	Numbers
	go into Significant	Irrigation	(other than				Quarrying	(including			confirmed to	confirmed to
			Irrigation)					Canals)			date for	date for
											exclusion	suspension
Poolewe	07/06/2023				1					1	1	0
Canonbie	18/06/2023				1				1	2	TBC	TBC
Luss	24/06/2023			1	5	2			2	10	TBC	TBC
Overlee	24/06/2023								2	2	TBC	TBC
Airyhemming	25/06/2023	5								5	TBC	TBC
Bridgemuir	25/06/2023				5		1		4	10	TBC	TBC
Daldowie	25/06/2023						1	1	3	5	TBC	TBC
Apigill	26/06/2023				1					1	TBC	TBC
Glen Strae	26/06/2023				9			1		10	TBC	TBC
Killin	26/06/2023						1			1	TBC	TBC
Newmilns	26/06/2023					1			3	4	TBC	TBC
Anie	27/06/2023		1	1	1					3	TBC	TBC
Creed Bridge	27/06/2023				19					19	TBC	TBC
Easter Turnaig	27/06/2023				2					2	TBC	TBC
Newhall Bridge	27/06/2023	4								4	TBC	TBC
Skeabost	27/06/2023			2	4		1		1	8	TBC	TBC
Craigendarroch	28/06/2023			1	2					3	TBC	TBC
Newton Stewart	28/06/2023		1							1	TBC	TBC
Bruachrobie	29/06/2023			1	1					2	TBC	TBC
Cultybraggan	29/06/2023	1		1	2				1	5	TBC	TBC
Killilan	29/06/2023				8					8	TBC	TBC
Maidencots	29/06/2023						2		1	3	TBC	TBC
Mar Lodge	30/06/2023			1						1	TBC	TBC
Total		10	2	8	61	3	6	2	18	110	1	TBC

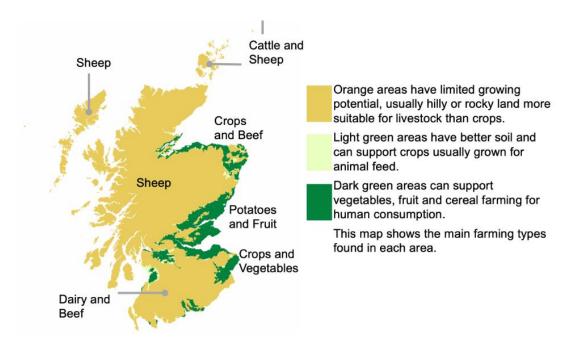
Based on DRAT station update and licence data at 17:12, 14/6/23 Excludes groundwater abstractions and excludes hydropower, drinking water.

The following DRAT station areas are also expected to go into Significant by end June, however, no licences have been identified which meet the criteria for suspension: Newcastleton, Capenoch, Kindrogan, Mossknowe, Allnabad.

DRAT station	Date expected to go into Significant	Agricultura I Irrigation		Distillery	Fish	Golf	Mining and Quarrying	Navigation (including Canals)	Other	Total
Marble Lodge	01/07/2023	1		1						2
Fiddlers Ford	02/07/2023	2	1		2	1				6
Elphin	03/07/2023				15					15
Galashiels	03/07/2023	1							4	5
Ancrum	04/07/2023	3	1	1	1	1			4	11
Bonnybridg e	04/07/2023		1		2				2	5
Condorrat	05/07/2023			1					1	2
Dalbeattie	05/07/2023	1	4		1				1	7
Feshie Bridge	05/07/2023			2						2
Hermitage	05/07/2023	26	1	1	1				3	32
Low Malzie	07/07/2023	1			1				1	3
Craighall (Perth)	08/07/2023	21			1					22
Wardend Bridge	08/07/2023	7		2	1					10
Bannockbur n	09/07/2023			1	5	1			2	9
Tarroul	10/07/2023			1						1
Woodend	10/07/2023	1	1							2
Total		64	9	10	30	3	0	0	18	134

Table 2 Licences which could reach Significant during July

Based on DRAT station update and licence data at 12pm 14/6/23 Excludes groundwater abstractions and excludes hydropower, drinking water. The following DRAT station areas are also expected to go into Significant during July, however no licences have been identified which meet the criteria for suspension: Dionard



Annex C – 2021 Agricultural Census – showing land suitability for crops

Enclosure 5 - FW: Bottled Water media request

From: <[redacted]@SCOTTISHWATER.CO.UK>
Sent: 15 June 2023 17:35
To: <[redacted]@gov.scot>; <[redacted]@gov.scot>
Cc: <[redacted]@SCOTTISHWATER.CO.UK>
Subject: RE: Bottled Water media request

Hi [redacted],

I find myself saying the same thing fairly regularly and therefore we should just give out the info.

The below info was issued under FOI previously – total per year is at the bottom of each column.

In recent years PWS in various parts of Scotland have been affected by reductions in rainfall, therefore, under a Scottish Government scheme, we have provided quantities of bottled water to local authorities which they then distribute to PWS in their respective areas. Under this scheme we have provided the following quantities of bottled water: shown as pallets; each pallet contains 960 litres of potable water.

Local Authority	2018	2019	2020	2021	2022
Aberdeenshire	19	3	42	6	24
Aberdeen City				1	
Angus	4		4	4	2
Argyll & Bute	10	6	8	10	
Borders					3
Dumfries and Galloway	18	12	21	30	14
East Ayrshire			8	4	6
East Renfrewshire		1	3	2	
Edinburgh					2
Fife	26		24		20
Highland	103		6	1	4
Inverclyde			2		
Moray	6		4		3
North Ayrshire	3		4	4	
North Lanarkshire			2		
Orkney Islands				2	
Perth & Kinross		2	12	6	6
Renfrewshire			1	2	1
Stirling	10			3	2
Scottish Borders			12	4	
South Ayrshire	39	2	34	23	5
South Lanarkshire			6	1	4
West Dunbartonshire	2				
Totals	240	26	193	103	96

August 2023

Many Thanks

[redacted]

SW Public General From: <[redacted]@gov.scot> Sent: 15 June 2023 14:01 To: <[redacted]@SCOTTISHWATER.CO.UK>; [redacted]@gov.scot Cc: <[redacted]@SCOTTISHWATER.CO.UK> Subject: RE: Bottled Water media request

EXTERNAL MAIL - Think Before You Click

Hi [redacted]

Yes, no problem. They could request this information under FOI in any event.

Could we have the figures too?

Thanks

[redacted]

From: <[redacted]@SCOTTISHWATER.CO.UK>
Sent: 15 June 2023 17:35
To: <[redacted]@gov.scot>; <[redacted]@gov.scot>
Cc: <[redacted]@SCOTTISHWATER.CO.UK>
Subject: RE: Bottled Water media request

Hi [redacted],

We've had a media request asking for information on how much bottled water we have distributed to LA's. This ask is to have it broken down per year since the schemes have been running.

Before we issue this, I wanted to make sure you were ok with this?

Thanks

[redacted]

Enclosure 6 – RE: WSO and SGoRR Actions - some assistance required

Hi [redacted],

Please find attached our response in relation to the points below and discussed yesterday.

In relation to the WSO question from Jon, I've only provided a high level response at this stage. We would like to undertake some modelling work to give us a more accurate view of the systems at greater risk of potentially requiring WSOs and aim to provide more information on this by the end of next week if that's acceptable. More work will be required following this to confirm the nature of any WSO measures which may be required. If you require anything sooner please let me know.

Regards, [redacted]

From: <[redacted]@gov.scot> Sent: 13 June 2023 13:16 To: <[redacted]@SCOTTISHWATER.CO.UK> Subject: WSO and SGoRR Actions - some assistance required

EXTERNAL MAIL - Think Before You Click

Hi [redacted],

Following on from out WSO meeting last week and also SGoRR, we've been instructed to work on preparing WSO in the event that we need them for this summer. I think it would be useful to set up a session to work out the difficulties with this.

Another action from SGoRR is to provide a consideration of the impact of water scarcity on the public water supply. [redacted]and I are wondering at point will there be concern for the public supply if there is little rainfall in the weeks ahead. We need to be able to provide an assessment for the First Minister on this with a deadline of **16**th **June**.

Happy to have a quick chat about the latter point in the first instance given the short timescale and then arrange something on the WSO for another date that suits (but not too far into the future).

I'm free this afternoon, 11-2 tomorrow and all day Thursday.

Thanks, [redacted]

Enclosure 6.1 – Scottish Water Response to Queries from the Scottish Government

Following SGoR(M) Meeting 8th June 2023

1) What is the impact of water scarcity on our reservoirs and what response measures do we have in place?

Scottish Water routinely monitors its reservoir levels and other sources and has supporting Drought Plans in place either at system or regional level to ensure that supplies are maintained should there be a repeat of the worst historic drought (WHD) on record.

Drought Plans are based on Drought Control Curves which indicate the level of drought risk based on reservoir levels at any given time of year. Each level of drought risk acts as a trigger for risk mitigation measures to be deployed, as set out below. Supplies in areas currently designated by SEPA as being in significant water scarcity are also subject to additional monitoring.

- Demand reduction through additional leakage management and public awareness campaigns.
- Augmenting supplies from adjacent supply systems
- Utilising alternative raw water sources
- Reducing compensation flows to water courses.

The majority of the current challenges on the public water supply relate to increased demand pressures as a result of the recent period of warm, dry weather. In terms of water resources, as of 12th June there were [redacted] systems in drought trigger at the lower risk levels. Should the current weather pattern continue over the coming weeks, this number will increase although is not expected to compromise supplies on our larger systems. However, should there be a drought event which extends beyond the worst historic drought for any system, additional measures through Water Shortage Orders may be required later in the summer.

For a number of smaller systems with direct abstractions from small water courses, the impact of prolonged, dry weather is likely to be experienced earlier. In these instances, supplies will be maintained through operational response measures such as tankering.

Scottish Water will also continue to be proactive in promoting media coverage regarding the public water supply and what people can do to help through its 'Water Is Always Worth Saving' campaign.

2) Is there likely to be a concern should the dry weather extend into the summer (with the potential for Water Shortage Orders)? (Response for Jon Rathgen)

As indicated above, should the dry weather continue, the number of systems in drought trigger will increase, with a number of systems potentially moving to greater levels of drought risk. Whilst supplies can be maintained to the worst historic drought, low rainfall into late summer / early autumn will likely increase the requirement for

measures to be deployed under Water Shortage Orders for some systems. However, the likelihood of an event beyond the worst historic drought is considered to be low based on the experiences of recent years when similar weather patterns have been seen at this stage of the year.

Enclosure 7 – Scottish Water - Water Update Report -16/06/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **74%** (down 3% from last week). There are [redacted] sites in drought trigger [redacted].

Regards

[redacted]

Scottish Water Trusted to serve Scotland

7.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 8 - RE: URGENT - Broadford Water Supplies

Jon/[redact],

I've just met with team, good news is that the pumps from Loch an Starsaich started today at 1pm. [redacted]. Loch an Starsaich has at least [redacted] supply within it, the short bridging arrangement through fast track CAR for a few days has allowed us to put in place infrastructure to access this. Photos attached show it was a significant undertaking in very remote location in short period of time.

I was contacted by BBC News to do an interview following press release on Broadford. Expect this to be on 6pm news.

Across the country we are experiencing incredible demand which is up 200MLD and sustaining at that level since Tuesday. Most WTW are running flat out to keep up with over [redacted] out maintaining supply. I'm hopeful the change in weather will ease the demand.

Drought and demand issues aside overnight we have had to put a boil restriction on for 80 properties in Airntully area near Perth. When excavating to repair a main we found a leaking sewer nearby. As a precaution we isolated supply and are working with Tayside CPHM to agree a return to service. Bottled water has been provided and we are flushing and super chlorinating the main. Intention is to lift boil on Monday with clear samples. [redacted] has updated [redacted] and Resilience team on this.

Regards,

[redact]

From: <[redact]@gov.scot> Sent: 16 June 2023 17:35 To: <[redact]@SCOTTISHWATER.CO.UK>; Jon Rathjen <jon.rathjen@gov.scot>; Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK> Subject: RE: URGENT - Broadford Water Supplies

Thanks [redact]

Thank you for this explanation.

It is actually very alarming – do we know why it dropped so fast? Was this down to customer demand? If it is, are we likely to see this pattern elsewhere? If it is likely to happen elsewhere, it would be very helpful to early warning given the scrutiny from Cab Sec and Ministers more generally.

It may also be time to start work on a Water Shortage Order for Broadford. I know that it takes a number of weeks to come into force. However, advertising it may help

August 2023

to get the message to consumers that there is not an unlimited supply of water in the environment.

Happy to discuss

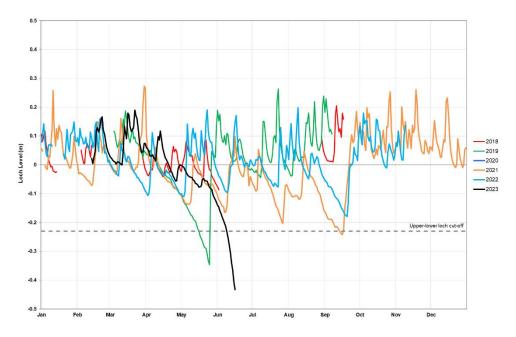
[redact]

From: <[redact]@SCOTTISHWATER.CO.UK> Sent: 16 June 2023 17:03 To: <[redact]@gov.scot>; Rathjen J (Jon) <Jon.Rathjen@gov.scot>; Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK> Subject: Re: URGENT - Broadford Water Supplies

Hi [redact],

The telemetry as an issue is a little bit of a red herring. There was a discrepancy between reading and actual but only 0.1m.

The main concern here has been the speed of reservoir drop (black line) to the lowest we have on our records (although these only go back 10 years since WTW was upgraded). We have not experienced issues here before. In the 10 days since SGoR(M) the rate of drop has been quicker than any other year and we have been working flat out to mobilise alternative option at Loch an Starsaich which would prevent the need to ask for Fast Track CAR with SEPA for Loch Lonachan.



I will do my best to reassure Ministers we have adequate plans and monitoring in place across all our sources.

At Broadford we hope to have the alternative source available for Sunday which will negate the need to further abstract from Loch Lonachan which is Special area of Conservation below our normal level.

On positive looks like 20mm rainfall forecast for the area on Monday.

Broadford issues aside my main concern at this point is extreme customer demand which since Tuesday is now up 200MLD.

I have a team call everyday with formal incident structure on a Tuesday and Thursday. Going forward I will ensure the outputs from Tuesday & Thursday meetings are shared with you and Jon.

Regards,

[redact]

From: <[redact]@gov.scot> Sent: 16 June 2023 15:23 To: <[redact]@SCOTTISHWATER.CO.UK>; Jon Rathjen <jon.rathjen@gov.scot>; Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK> Subject: RE: URGENT - Broadford Water Supplies

Hi [redact]

Thanks very much for this update.

We have just spoken to the Cabinet Secretary as the use of the protected loch has to go through a complicated set of authorisations involving SEPA and the Cab Sec. I wont even try to explain the legislation, but rest assured that everyone understands the criticality.

Ahead of next Tuesday, we'll need to reassure her that:

- 1. This was an isolated case associated with the failure of monitoring equipment (telemetry seems to be a technical term, so best not to use)
- 2. Critical monitoring equipment is being checked to ensure good operational order to ensure that this doesn't happen again elsewhere.

Some proactive comms is being prepared – I havent seen a draft yet. However, it will be targeted at Skye and aimed to reassure the public that water supplies are being monitored carefully.

In your MSP briefing on Tuesday, you might want to make explain how water supplies are managed to meet demand and reducing amounts in the environment.

Happy to discuss

[redact]

From: <[redact]@SCOTTISHWATER.CO.UK> Sent: 16 June 2023 13:24 To: <[redact]@gov.scot>; Rathjen J (Jon) <Jon.Rathjen@gov.scot>; Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK> Subject: Re: URGENT - Broadford Water Supplies

Jon/[redact],

You are correct we have some issues at Broadford. This is not one of our regularly modelled systems but the issue was highlighted last Thursday after we increased checks on all systems. We have been working to mitigate this.

There are 2 sources near by which can be connected and will alleviate the issues.

One of these is a protected source and we are working with SEPA to see how we enable this. In meantime all the pipework and pumps etc is being put out to enable.

The 2nd Loch is not protected and therefore we hope to have this switched on over weekend while we continue working on the protected Loch which has significantly more water.

Tankering to offset demand could be an option here but will be limited and demand across the country has already placed strains on our supply chain.

I'm available anytime for a call to clarify.

Regards,

[redacted]

From: <[redacted]@gov.scot>
Sent: Friday, June 16, 2023 12:21:22 pm
To: <[redacted]@SCOTTISHWATER.CO.UK>
Subject: FW: URGENT - Broadford Water Supplies

EXTERNAL MAIL - Think Before You Click

Apologies [redacted], I seem to be using the wrong email address.

I hope Peter has picked this up.

Regards

[redacted] From: Rathjen J (Jon) <Jon.Rathjen@gov.scot> Sent: 16 June 2023 11:23 **To:** <[redacted]@gov.scot>; Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co **Subject:** RE: URGENT - Broadford Water Supplies

Just to emphasise I am very concerned that I'm briefing ministers including FM that we have no major issues on public supply and that does not appear to be the whole picture.

Grateful for you urgent update.

Jon

Jon Rathjen Deputy Director Water Policy & DECC Operations Scottish Government Desk phone[redacted] Blackberry: [redacted]

From: [redacted] <[redacted]@gov.scot>
Sent: Friday, June 16, 2023 10:41 AM
To: Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co
Cc: Rathjen J (Jon) <Jon.Rathjen@gov.scot>
Subject: URGENT - Broadford Water Supplies
Importance: High

Hi Peter and [redacted]

I have just been informed about a severe water scarcity issue at Broadford on Skye with public supplies in some potential difficulty.

I understand from SEPA that they are not able to grant a Fast Track CAR licence owing to the designation of the water body identified as an alternative source of water under the Habitats Directive. SEPA is seeking legal advice on how we proceed, but in the meantime, can I check a few things with you as I'm worried that the line "Public Supplies are fine" is not correct. Would you be able to tell me:

- 1. Are tankers able to maintain supplies at Broadford meantime?
- 2. Will any of the rain in the forecast make any difference?
- 3. Why has this area not been selected for a Water Shortage Order given the scarcity issues and the designation that applies to alternative water sources?

Grateful for an urgent update. Ministers are very concerned about current water scarcity issues and I want to be able to brief them properly ahead of Tuesday.

We've been working with [redacted] to dust off the Water Shortage Orders – perhaps we should get one ready for Broadford? I know it takes weeks to put one in place, but advertising the need for one might reinforce the message to consumers that water is not limitless even on Skye.

Regards

[redacted]

Enclosure 9 – briefing material - water resources - for tomorrow's meeting

Hi [redacted],

I've attached the briefing note with some updates for you, which hopefully will be helpful.

We've also just had through the most updated drought figures, which could be used to update the figures highlighted in yellow in the briefing:

Total reservoir storage is currently **74%** (down 3% from last week). This is 13% lower than 2022 and 12% lower than average. There are [redacted] in drought trigger [redacted].

[redacted]



SW Private General From: <[redacted]@gov.scot> Sent: 19 June 2023 12:34 To: <[redacted]@gov.scot>; <[redacted]@SCOTTISHWATER.CO.UK> Cc: <[redacted]@SCOTTISHWATER.CO.UK> Subject: RE: one more thing - diary invite/link to meeting!

EXTERNAL MAIL - Think Before You Click

Hi [redacted],

I mentioned at the end of the call that we may not need the lines for the Ministerial statement today but I was wrong. The deadline for that has remained COP today.

Thanks, [redacted]

From: <[redacted]@gov.scot> Sent: 19 June 2023 12:05 To: <[redacted]@SCOTTISHWATER.CO.UK>; <[redacted]@gov.scot> August 2023

Cc: <[redacted]@SCOTTISHWATER.CO.UK> **Subject:** RE: one more thing - diary invite/link to meeting!

Link being sent to them now.

[redacted]

From: <[redacted]@SCOTTISHWATER.CO.UK> Sent: 19 June 2023 11:46 To: <[redacted]@gov.scot>; <[redacted]@gov.scot> Cc: <[redacted]@SCOTTISHWATER.CO.UK> Subject: one more thing - diary invite/link to meeting! Importance: High

Hi [redacted], [redacted],

I just thought of one more thing just as we hung up the call.

[redacted] mentioned this morning that he didn't think he had a diary appointment/link for tomorrow's meeting. Do you know if this has been issued as yet for Peter and [redacted] or what the plans are for issue?

Many thanks

[redacted]



SW Private General

Enclosure 9.1 - Parliamentary session and statement on water scarcity – Brief for Ms McAllan and Scottish Water

1. Ms McAllan speech (5 minutes and to include other policy areas)

[section on SEPA and water scarcity in the environment]

'I am reassured that while the water scarcity situation is being managed by Scottish Water, there is no immediate concern for public water supplies. Everyone is being advised to use water responsibly. Peter will be able to elaborate and provide further information during his slot.

I am however concerned about private water supplies. These supplies are more vulnerable to the impacts of water scarcity and climate change and there have been reports from 100's of properties already seeking assistance. The emergency bottled water scheme, which I signed off on 2 June, is providing bottled water to those in need. Additional efforts are being made by local authorities to deliver bottled water directly to the homes of vulnerable members of the public.'

Lines for parliamentary statement

2. Public water supplies [to liaise with Scottish Water on these lines]

- There is no immediate concern for public water supplies. However, everyone needs to use water responsibly.
- [Scottish water approved lines taken from SGoRR brief] The current challenges on the public water supply relates to increased demand pressures as a result of the recent period of warm, dry weather. In terms of water resources, as of 19th June there were 26 sites in drought trigger at the lower risk levels. Should the current weather pattern continue over the coming weeks, this number will increase although is not expected to compromise supplies on our larger systems. However, should there be a drought event which extends beyond the worst historic drought for any system, additional measures through Water Shortage Orders may be required later in the summer.
- For a number of smaller systems with direct abstractions from small water courses, the impact of prolonged, dry weather is likely to be experienced earlier. In these instances, supplies will be maintained through operational response measures such as tankering.
- For the last three weeks we have seen exceptional and sustained demand from domestic customers, predominantly associated with water use in gardens. This peaked on Thursday 15th and Friday 16th June with 250 million extra litres of water being produced to keep up with demand.
- Drinking Water is treated to ensure that it is fit for human consumption. Low water levels and high temperatures may impact quality and make it harder to treat. It is possible that impacts on quality such as the instance of brown water as seen in parts of Lanarkshire in the Summer of 2021 may be seen again. Scottish Water are monitoring the situation closely though it is not always possible to predict exactly which reservoirs will experience quality issues.

Mitigation measures:

- Scottish Water will also continue to be proactive in promoting media coverage regarding the public water supply and what people can do to help through its 'Water Is Always Worth Saving' campaign.
- Tankers have been deployed to supplement supplies in high stress areas

- Scottish Water are making an assessment as to when drought conditions will affect public water supplies should this dry weather continue. This is with a view to proposing Water Shortage Orders.
- Teams are working hard to respond to bursts and leakages and the public are being asked to report any issues.

3. Private Water Supply

- Nearly 200,000 people or 3% of the population in Scotland depend on a Private Water Supply for their drinking water. PWS are typically found in rural areas at some distance from the public mains and are much more vulnerable to the impacts of a changing climate.
- 100's of reports have been received from across most local authority areas with South Ayrshire reporting the greatest number of supplies running dry.

Mitigation measures:

- The fully funded private water supply emergency scheme has been re-opened to provide bottled water to those on private water supplies that need it. Households should contact their local authority environmental health department if they require support.
- Additional support is in place for vulnerable households and bottled water will be delivered directly where required.
- Local and regional resilience partnerships have in the past supported local authorities in achieving this and stand by to support once again if required

4. Q&A [Answers to be populated by Monday 19th June]

- Q How likely is the need for a hose pipe ban/water shortage orders?
 - A Should the current weather pattern continue over the coming weeks, the number of public supply systems in drought trigger will increase, with a number of systems potentially moving to greater levels of drought risk. Whilst supplies can be maintained to the worst historic drought, low rainfall into late summer / early autumn will likely increase the requirement for measures to be deployed under Water Shortage Orders for some systems. However, the likelihood of an event beyond the worst historic drought is considered to be low based on the experiences of recent years when similar weather patterns have been seen at this stage of the year.
- Q Why hasn't a hosepipe ban/water shortage order been used yet?
 - A The majority of the current challenges on the public water supply relate to increased demand pressures rather than resource pressures. All public supply systems that are currently in drought trigger are at the lower risk levels with drought plans in place to ensure that supplies are maintained should there be a repeat of the worst historic drought. WSO orders are used as a Drought measure as part of Water Resource Act 2013, however there are recent examples of English & Welsh companies using them to curb excessive and wasteful use of water which is affecting ability to maintain supply to customers.
- Q Why does increased demand put pressure on the public water supplies?
 - A A 20-25% increase in household demand puts strain on infrastructure to move the water as quickly as customers are using it. Many systems are designed with storage tanks which buffer out demand spikes and recover during the night. With high demand these are dropping lower and not recovering during night. Tankering to supplement tanks is required or introducing flows from other areas. Many Water Treatment Works are running near full production capacity.

- Q Where are the smaller systems that are more likely to be affected located?
 - A Each drought has its own geographic strains and so its difficult to be specific in which systems will be affected. Scottish Water regularly monitors each system and will take actions to protect supply through actions such as tankering and introducing additional raw water sources through SEPA approval. There are 450 sources with a mix of reservoirs, lochs, rivers, streams and boreholes.
- Q Why is there no risk to the public water supply when the risk is so high in the environment?
 - A Majority of public water supply customers are supplied by sources from reservoirs, lochs or large river sources which are more resilient to early stages of drought.
- Q Is there more that can be done to support vulnerable users of private water supplies?
 - A Local authorities are providing additional support to vulnerable users by delivering bottled water directly to households where required. Whilst the emergency scheme is currently limited to providing bottled water, we are working closely with local authorities and local and regional resilience partnerships to understand if any other support can be provided, for example, utilising shower facilities at local leisure centres and providing bowsers of water.
- Q Why are private water supplies more vulnerable to water scarcity compared with the public supply?
 - A The majority of private supplies come from small surface water sources, such as burns and streams, which respond quickly to changes in the environment. They are usually the first to be affected.
- Q In which local authorities have private water supplies run dry?
 - A Most local authorities that are home to private water supplies have reported issues. These include Aberdeenshire, Perth and Kinross, Scottish Borders, Dumfries and Galloway, Highland, Stirlingshire and South Ayrshire. South Ayrshire have received the highest assistance requests from 116 properties.
- Q Is Scottish Water investing in resilience?
 - A At Scottish Water, we plan for the future provision of water through a sustainable water resource management approach, planning to secure continuous, safe, clean drinking water for our customers whilst supporting economic growth and protecting the environment.

We do this through water resource planning, which looks 25 years ahead taking account of water resource availability and the changing demands for water and making sure these balance, including climate change scenarios, securing resilience and supporting growth. These activities inform our long-term investment requirements which may include additional sources of water or increased connectivity across the country. However, at this stage, we do not have any plans to build additional reservoirs.

In the meantime, we also have operational drought management plans which are implemented during extended dry periods to ensure customers are kept in supply. These include all-year round monitoring of our reservoir levels and drought action planning to ensure we can take appropriate actions early enough to maintain supplies to our customers. These actions may include the temporary use of alternative water sources, balancing supplies between adjacent systems and the short-term use of tankers where required, particularly for our smaller communities, at times of peak demands. Q: What about leakage? What impact is that having under the current situation and shouldn't we be improving leakage levels.

A: For Scottish Water, the main issue at this time is an increase in demand for water which is at risk of outstripping production capacity.

Leakage is something which Scottish Water monitors closely and actively works to manage. Year on year since 2006, Scottish Water has continually reduced leakage levels. There are teams working continually across Scotland to find and fix leaks and Scottish Water are investing around £11 million per year to tackle leakage. This work is continuing throughout this period of exceptional weather.

Background Information

- Scottish Water are seeing exceptional and sustained demand from domestic customers, predominantly due to water use in gardens. This peaked on Thursday 15th and Friday 16th June with 250 million extra litres of water being produced to keep up with demand.
- A 20-25% increase in household demand puts strain on infrastructure to move the water as quickly as customers are using it. Whilst many systems are designed with storage, these systems are struggling to recover during the nighttime, as normally happens, due to this exceptional demand.
- In 22/23 leakage value of 454ML/d, this equates to 25% of total distribution input. This is both Scottish Water and customer side leakage (after the toby)
- Leakage in Scottish Water has reduced continually year on year since 2006 when leakage was greater than 1100ML/d. Since 2018 we have reduced from the value of 492ML/d to the lowest value of 454ML/d.
- We continue to operate at the Economic Level of Leakage (ELL) the point where the cost of reducing leakage becomes greater than the savings from reduced water production.
- Scottish Water aim to deliver to the economic level in every zone and go beyond this where there is an additional benefit to our customers and/or the environment. We must do this in parallel with all other demand management activities, such as making customers more aware of the value of water.
- We continue to invest around £11m per annum finding and fixing leaks. We have 48,000km of mains with more than 2.5million connections and many other elements of connected infrastructure.
- Finding a burst that is visible is straightforward but we have millions of small weeps and seeps (drips) throughout the network that add up to a large/considerable volume of water each day. We would describe this as background leakage which equates to just under half of our total leakage volume.
- It is estimated that more than 25% of leakage is within customer property boundaries (the private service pipe). Scottish Water informs customers whenever any leaks are found and, where possible, supports with a repair.
- Q Why did Scottish Water need to abstract additional water at Broadford?
 - A Broadford is supplied by two natural lochs behind the village. Over a three-week period from late May, the level in these lochs started to drop far quicker than had been seen before. This risked stranding the supply to the burn where Scottish Water abstracts water to supply the Water Treatment Works.

To ensure adequate supply down the burn, two concurrent activities were undertaken, firstly to pump from a 3rd nearby source (Loch Lonachan) as an

immediate means of maintaining supply to the burn and, at the same time, mobilise pumps to alternative source. Loch Lonachan is an Area of Conservation, therefore required Ministerial approval via SEPA to do this.

The syphon from Loch Lonachan was in place from Friday 16th to Monday 19th June and was switched off following successful deployment of pumps from alternative source. Loch Lonachan has estimated volume of 500ML with the syphon abstracting an additional 3ML, the environmental impact of this will be minimal.

Q: Why is Scottish Water pumping from the River Spey?

A: Scottish Water is licenced to abstract Water at the [redacted] providing water supply for large parts of Moray. This is predominantly achieved through boreholes which sit just back from the river bank.

The yield from these has dropped with lower river levels and this has required installation of river pumps to maintain normal abstraction levels. At current river levels, abstraction is less than 2% of daily river flows. Scottish Water's abstraction activity on the River Spey represents only 1% of levels, with fisheries, whisky and Hydro all abstracting significantly more.

When river levels are low Scottish Water pays SSE to release water equal to its abstraction, therefore negating any environmental impact. In 2022 this was done for 41 days at a cost of over [redacted]. However, we do recognise the visual impact of our pumps on the Spey and are working to deliver a solution which secures water supply for the area and minimises visual impact.

Enclosure 10 – Scottish Water - Water Update Report -16/06/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **74%** (down 3% from last week). There are [redacted] sites in drought trigger [redacted].

Regards

[redacted]

Scottish Water Trusted to serve Scotland

10.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 11 – FW: Details of meeting with Cab Sec - Tues 20th

Hi [redacted], [redacted],

I hope the call this afternoon goes well and just a last minute check on the running order to make sure it is still the same as below.

Do you think there has been any update to the MSPs who have confirmed attendance?

Running Order

- Introduction from Cabinet Secretary, Mairi McAllan (5mins)
- Update on the latest weather forecast from Met Office (5mins), person TBC
- Update on SEPA's actions to implement the National Water Scarcity Plan by David Harley (5mins)
- Update on the public water supply by Peter Farrer, Scottish Water (5mins)
- Question & Answer session (30mins)

MSPs who have confirmed attendance so far

Ruth Maguire (SNP, Cunninghame South) Jackie Dunbar (SNP, Aberdeen Donside) Liam Kerr (Con, North East Region)(Con party spokesperson) Willie Rennie (Lib Dem, North East Fife) Brian Whittle (Con, South Scotland Region) Finlay Carson (Con, Galloway and West Dumfries) Sarah Boyack (Lab, Lothian Region)(Labour party spokesperson) Representative of Jackie Baillie (Lab, Dumbarton) Representative of Siobhian Brown (SNP, Ayr) Representative of Evelyn Tweed (SNP, Stirling) *this list is likely to change through the course of today and tomorrow.

[redacted]



Enclosure 12 - FW: update ahead of MSP meeting

From: <[redacted]@SCOTTISHWATER.CO.UK> Sent: Tuesday, June 20, 2023 10:57 AM To: Rathjen J (Jon) <Jon.Rathjen@gov.scot>; Peter Farrer <Peter.Farrer@SCOTTISHWATER.CO.UK> Subject: Re: update ahead of MSP meeting

Hi Jon,

Broadford - Non-sensitive Loch operational since Saturday. Sensitive Loch switched off on Monday. I personally visited site on Sunday to check all 3 lochs and our intake(a fair hike up the hills). The team did a great job getting both solutions deployed.

We have some minor/regular yield issues across some smaller sites at [redacted], [redacted] and [redacted]. We are supplementing these with tankers.

We have also deployed a river pump in [redacted]. We have done this before but comes with friction with [redacted].

Demand peaked up by 250MLD on Thursday and Friday last week. Very grateful this has fallen back with change in weather.

The weather has not had any noticeable change in storage levels yet and we still need more but it has cut the extreme demand from domestic households.

I also attach Q&A document we prepared in advance for your reference if required [excluded here as duplicate from enclosure 9.1].

Peter will lead on our update and I will be on to support with anything that comes up in Q&A if required.

If need anything else please let me know.

Regards,

[redacted]

Scottish Water – Trusted to serve Scotland

From: Jon.Rathjen@gov.scot <Jon.Rathjen@gov.scot> Sent: Tuesday, June 20, 2023 10:38:34 am To: <[redacted]@SCOTTISHWATER.CO.UK> Subject: update ahead of MSP meeting

EXTERNAL MAIL - Think Before You Click

[redacted],

Could you give me just a few bullet points ahead of the meeting tonight so I'm up to speed.

In particular on whether the 'non sensitive' loch is now fully operating, is the 'sensitive' one now off?

Any other supplies of concern?

Impact of rain?

thanks

Jon Rathjen Deputy Director Water Policy & DECC Operations Scottish Government Desk phone: [redacted] Blackberry: [redacted] August 2023

Enclosure 13 – Water Demand & Drought update 220623

Jon/[redacted],

As promised please find update following our Thursday call.

If you require any more information please let me know.

Regards,

[redacted]

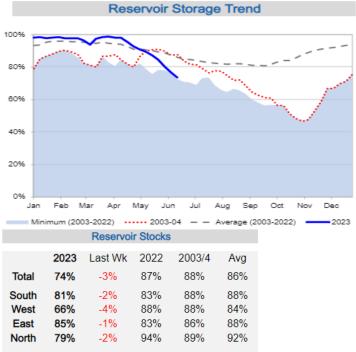
Scottish Water – Trusted to serve Scotland

Enclosure 13.1 – Demand and Drought Update

Exceptional demand update 22/06/2023

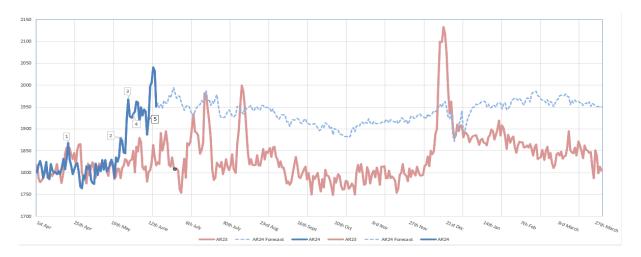
Reservoir Stocks

The Water Update report issued 19th June reported general stock levels reducing by 3% to 74%. This is 12% below average and almost at the minimum level seen at this time of year since 2003, reflecting the dry weather experienced in April through to June. The weather since mid-May has been warm and dry which is forecast to continue throughout June with further reductions anticipated. We have experienced some rain in the last week but not enough to make a difference to source levels.



Distribution Input

Demand increased at the end of May from a stable position. Unlike previous years the increase in demand of 150ML/d has held constantly for 3 weeks and entering the weekend 17th June increased further to nearly 250ML/d above the April average. At the peak we deployed [redacted] tankers to support supplies across the country and many systems were being stretched to their limits. Demand has eased in last few days to more manageable volumes.



Weather Forecast

We have had some rain moving from the South and West but longer term trends suggest more warm and dry weather to come for the end of June and early July.

Sites currently in drought trigger

The Water update report 16th June (issued 19/6/2023) highlighted [redacted] sites in drought trigger [redacted]. [redacted] Maximum Total Drought Triggers by Month and Year [redacted]

Key sites and actions

North:

[Redacted]

East:

[Redacted]

South:

[redacted]

West:

[redacted]

Communications

Considerable coverage across all media outlets during last week. This has been heightened by the story relating to Broadford on Skye and the SEPA water scarcity report showing further decline.

There is a ministerial briefing on Tuesday 20th June at 16:00 which is likely to create more coverage.

Message is becoming more pointed and the consideration of water shortages becoming a reality is beginning to come through.

Liaison with SEPA and Scottish Water to agree aligned comms strategy and joint messaging.

Private Water Supplies

We have been advised that some local authorities have had requests for support due to drying private supplies. 92 pallets of water distributed to date. Equivalent to 88,230 litres.

<u>Summary</u>

A very challenging increase in demand following a hold above norm for an extended period is stretching some resources. The teams are responding very well and maintaining supplies throughout. Tanker availability is being pushed but suppliers have been able to provide for us in the last week

The complex situation at Broadford will continue to be a focus over coming weeks.

[redacted]

Enclosure 14 – FW: Water Shortage Orders - Drought Risk Review

From: <[redacted]@SCOTTISHWATER.CO.UK> Sent: 23 June 2023 12:27 To: <[redacted]@gov.scot> Cc: <[redacted]@gov.scot> Subject: Water Shortage Orders - Drought Risk Review

RESTRICTED - For Scottish Water / Scottish Government Review Only

Dear [redacted],

Further to the recent discussions between Scottish Water and the Scottish Government regarding the potential use of Water Shortage Orders, please find attached a paper which summarises the outputs from our modelling work to determine where WSO may be required.

As discussed earlier, I've kept this as a draft document for the time being until this afternoon's meeting.

Please let me know if you have any questions in the meantime.

Regards, [redacted]

<u>Water is always worth saving - Scottish Water (yourwateryourlife.co.uk)</u> <u>Scottish Water</u> Trusted to Serve Scotland

Enclosure 14.1 – Water Shortage Orders – Drought Risk Assessment

1. Introduction

This document has been prepared in response to a Scottish Government request to start the preparation of Ordinary Water Shortage Orders (WSO) to maintain public water supplies as a result of the water scarcity position across Scotland as reported by SEPA from early June 2023.

This initial assessment is based on hydrological modelling of [redacted] water supply systems considered to be at greater risk of supply failure should there be a repeat of the Worst Historic Drought (WHD) on record for each system. Following this initial assessment, the risk position for all applicable storage systems will continue to be monitored with ongoing modelling undertaken as required. Due to the variable nature of water resources at this time of year, as influenced by weather patterns and water usage, the reported risk position is likely to change. At the time of writing, rainfall was forecast for the north and west of Scotland for wb 26th June.

2. Water Shortage Orders - Background

Ordinary Water Shortage Orders are legislative tools intended to reduce water usage to safeguard and restore water storage levels over time, reducing the risk of requiring Emergency WSO at a later date. WSO can cover a range of measures including, but not limited to, hosepipes bans, non-essential use bans and abstraction from any source. Due to the current legislative process, they have a 6-week minimum lead time and need an extended period over which to substantially influence storage. WSO can be proposed when Scottish Water consider, and can demonstrate, the public water supply to be at risk. For this reason, WSO are most effective for systems with reservoirs which allow sufficient time for the measures to be of benefit. Small systems which have limited storage do not give sufficient advance warning of failure for WSO to be an effective tool and have therefore been excluded from this assessment. For such systems, drought plan options will, in general, be sufficient to mitigate the risk to the public water supply. However, some situations may require additional measures to maintain supplies to customers.

3. Assessment Approach

To determine the requirement for WSO on applicable storage systems, the risk to the public water supply has been assessed through hydrological modelling based on recent storage levels and an assumption that there will be a repeat of the WHD on record for each system. Statistically, this is considered to be a low probability scenario but cannot be ruled out considering recent weather patterns. The assessment also assumes that all options in the drought plans can be deployed on time and deliver the expected benefit.

As WSO have never been applied by Scottish Water under current legislation, for the purposes of this exercise the following criteria have been applied:

- Any systems projected to fall to [redacted] on the drought control curves (DCC see Appendix) – Ordinary WSO recommended.
- Any system projected to drop to Drought Impact storage levels on the DCC to be closely monitored if no further drought options or Ordinary WSO recommended after considering other risk factors.

For the systems where a WSO is recommended, further work is required to determine the measures to be proposed under the WSO. Whilst these will be specific to each system, hosepipe bans are likely to be a requirement in all cases.

4. Results

The results of the hydrological modelling undertaken on [redacted] systems considered (at the time of writing) to be at greater risk of failure are summarised in Table 1.

Table 1 – Drought Risk Projections for Systems at Greater Risk of Impact – June 2023

[redacted]

At present, [redacted] is projected to drop to emergency storage levels in autumn 2023, with the risk to supplies extending into 2024. Although an additional option to [redacted] is currently being assessed, it is recommended that preparations are made for a WSO at this stage. For [redacted], although projected to fall to emergency storage levels, it is currently at a low drought risk level and has the potential to recover quickly in response to rainfall. However, it is recommended that preparations are made for a WSO at this stage with a decision on its implementation taken at a later date.

[redacted] is projected to fall to just above emergency storage levels, the risk of which is dependent on the various measures currently deployed across the [redacted] system being maintained. As a precaution, it is recommended that a WSO for [redacted] is prepared, which would also include supplies from [redacted][redacted], with a decision on its implementation taken at a later date.

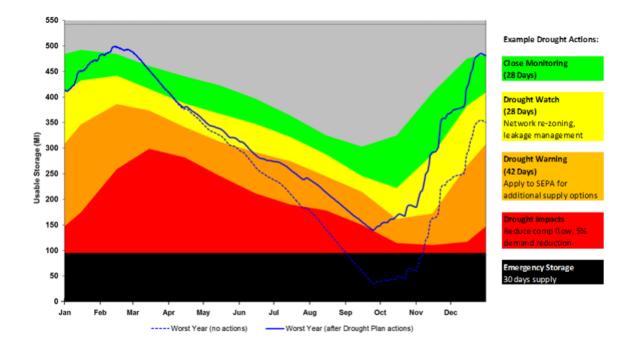
[redacted], [redacted] and [redacted] are not considered to be at risk of failure in 2023. However, this is dependent upon a number of factors and it is recommended that the systems should continue to be closely monitored. WSO may also be required to protect supplies for 2024 and should be kept under review.

5. Recommendations

It is recommended that:

- Ordinary WSOs are prepared for [redacted], [redacted]and [redacted], with an initial decision on their implementation taken after the initial preparation phase.
- [redacted], [redacted]and [redacted]to be closely monitored with the potential for WSOs to be prepared at a later date.

Appendix – Example Drought Control Curve



Enclosure 15 – Scottish Water - Water Update Report -30/06/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **72%** (down 2% from last week). There are [redacted] sites in drought trigger [redacted].

Regards

[redact]

Scottish Water Trusted to serve Scotland

15.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 16 - RE: Water Demand & Drought update 270623

Jon/[redacted],

Update from our Tuesday meeting attached. Key messages:

- Recent rainfall as taken peak off the demand
- Broadford is now running naturally again, [redacted]
- Reservoirs are 13% lower than average but rate of drop has slowed

Regards,

[redacted]

Scottish Water – Trusted to serve Scotland

From: [redacted] Sent: 22 June 2023 16:34 To: Jon Rathjen <<u>ion.rathjen@gov.scot</u>>; <<u>[redacted]@gov.scot</u>>; Peter Farrer <<u>Peter.Farrer@SCOTTISHWATER.CO.UK</u>> Subject: Water Demand & Drought update 220623

Jon/[redacted],

As promised please find update following our Thursday call.

If you require any more information please let me know.

Regards,

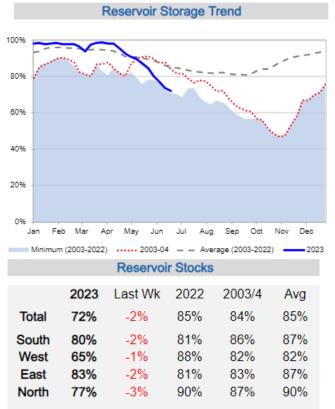
[redacted]

Enclosure 16.1 – Demand and Drought Update

Exceptional demand update 28/06/2023

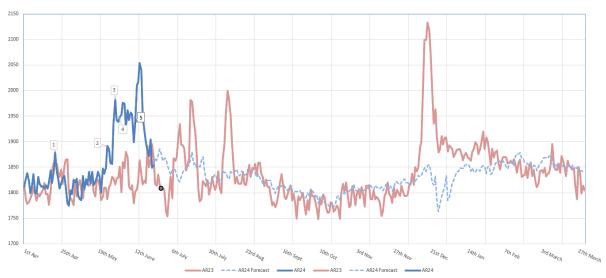
Reservoir Stocks

The Water Update report 23rd June reported general stock levels reducing by 2% to 72%. This is 13% below average and tracking the minimum level seen at this time of year since 2003, reflecting the dry weather experienced in April through to June. Weather patterns have become more unsettled in the last week, and we have experienced rain across the country. It will take a more sustained period of rainfall to reverse the current downward trend.



Distribution Input

Demand reduced in the last week due to wet weather experienced across the country. The sharp drop supports our belief that most of the additional demand is related to outdoor use. The value of 1850ML/d on Saturday 24th may spike slightly before falling again this week. The value remains 25 - 50ML/d above the values seen through April and early May. As of 27th June, we have only [redacted] tankers supporting [redacted] following a reduction from the peak of [redacted]



Weather Forecast

We have had some rain moving from the South and West and it looks to be unsettled over the next week with spells of rain across the country. Long term forecast suggests it could be wetter than average in the first week of July.

Sites currently in drought trigger

The Water update report 23rd June (issued 26/6/2023) highlights [redacted] sites in drought trigger [redacted].

[redacted]

Maximum Total Drought Triggers by Month and Year [redacted]

Key sites and actions

[redacted]

Communications

Considerable coverage across all media outlets following updated release on Friday 23rd June. Good discussions with Scottish Government comms and PSG groups asking local authorities to amplify our messages and Ministers being encouraged to share on blogs and vlogs.

Summer events have begun with good presence at the Royal Highland show. Numbers not released but we have spoken to thousands of people about water efficiency over the 4 day event.

Private Water Supplies

Since the start of June we have supplied 120 pallets of bottled water to various local authorities across the country.

Summary

A reduction in the demand for water has been welcomed and is allowing systems to recharge. It is also giving our team members a break from sustained pressure to maintain supplies in challenging circumstances. Tanker support has reduced to [redacted] from a peak of [redacted]. While there is some rain in the short term forecast, the situation will be monitored closely, and the incident command team will continue to meet weekly on Tuesday's and Thursday's. At Broadford following rainfall in last few weeks the lochs are flowing naturally again and the pumps and siphon are currently not in use although capability remains in place.

[redacted]

Enclosure 17 – RE: WSO Working Group - Paper for comment by 10th July

Hello again,

I thought it may be useful to provide some examples of drought plans from England, just to help with the vision.

Thames Water - <u>drought-plan-summary.pdf (thameswater.co.uk)</u> Wessex Water - <u>drought-plan-2022-non-technical-summary.pdf (wessexwater.co.uk)</u>

Thanks, [redacted]

From: [redacted] Sent: Tuesday, June 27, 2023 11:08 PM To: <[redacted]@gov.scot>; <[redacted]@consumer.scot>; <[redacted]@SCOTTISHWATER.CO.UK>; <[redacted]@SCOTTISHWATER.CO.UK>; <[redacted]@SCOTTISHWATER.CO.UK>; <[redacted]@SCOTTISHWATER.CO.UK>; <[redacted]@SCOTTISHWATER.CO.UK>; <[redacted]@gov.scot>; <[redacted]@gov.scot> Cc: <[redacted]@gov.scot>; <[redacted]@SCOTTISHWATER.CO.UK>; Subject: WSO Working Group - Paper for comment by 10th July

Good evening all,

Please see attached my paper presenting the policy proposals for water shortage orders. Proposals are to go to Ministers by 20th July and to save writing multiple documents for different readers, I've written this paper for a Ministerial audience. It still summarises our discussions and presents the risks and benefits of the proposals but also spells out details you are well versed in.

I know everyone is stretched for time at the moment so I've decided to cancel next weeks working group. This should allow more time to focus on delivering your comments to be sent to me by **Monday 10th July**. This will allow some time for them to be considered ahead of sending them to Ministers.

Thanks so much to all of you for your input so far. There is still work to do and we'll continue to hone the proposals in the months ahead but I think once comments have been received, we'll have something solid enough both for Ministers and the consultation in August.

Thanks, [redacted]



Enclosure 17.1 – Water Shortage Order Policy Proposals

Water & Sewerage: Water Industry Climate Change Adaptation

Policy Options Summary

The Water Shortage Order Sub-Group is developing policy options that aim to modernise the current legislation for Water Shortage Orders (WSO).

It has focused on actions that will make implementing water restrictions quicker and more flexible, whilst encouraging all water users to take collective action during times of water scarcity. These have been driven by the thinking that, (1) there will be a greater need to use water restrictions over the coming years due to the impacts of climate change, and (2) there is mixed messaging for different water users when it comes to restrictions which makes it more difficult to drive the long-term behaviour change required to reduce water use.

Working Group	Drinking Water
Subject Area	Water Shortage Orders / Water restrictions
Working Group Lead	[redacted] – Scottish Government
Working Group Participants (name and organisation)	[redacted], Scottish Government [redacted], Scottish Government [redacted], Scottish Government [redacted], Scottish Water [redacted], Scottish Water [redacted], Scottish Water [redacted], Scottish Water [redacted], SEPA [redacted], DWQR [redacted], Consumer Scotland

Background, Context and issues

The Water Resources (Scotland) Act 2003 outlines the provisions for Water Shortage Orders (WSO) in the event of, or the threat of, a serious deficiency of water supplies in a given area. WSO can cover a range of measures including, but not limited to, hosepipes bans, non-essential use bans and abstraction from any source. The legislation addresses domestic and non-domestic use of the public water supply, and requires Scottish Water to propose the need for a WSO to Scottish Ministers. Under current legislation, Scottish Water must initiate the process and apply to Ministers for a WSO after demonstrating that the public water supply is at risk. Ministers are then required to consult the public for 14 days ahead of issuing a WSO. At best, it can take 6 weeks for a WSO to be approved.

Environmental water use is also managed by SEPA via the Controlled Actives Regulations (CAR). These Regulations apply regulatory controls over activities that may affect Scotland's environment, such as water abstractions for agricultural use. A licence is needed if site-specific controls are required. SEPA's National Water Scarcity Plan sets out how water resources will be managed prior to and during periods of prolonged dry weather for licence holders. It presents a tiered framework and outlines the steps that will be taken in response to increasing levels of water scarcity. It was this framework that informed the decision to temporarily suspend abstraction licences in the summer of 2022 as a result of significant water scarcity.

A stakeholder workshop was held in January 2023 at the beginning of the policy development process to tease out the key policy issues for drought risk management. The discussions highlighted the need for a holistic approach to the implementation of water restrictions and the messaging supporting them for all users.

The key issues identified by the sub-group are:

- WSO take too long to implement
- Current provisions take a sweeping approach and aren't flexible enough
- The sweeping nature of implementation is disproportionate and means restrictions are less likely to be implemented
- There is concern that customers will see restrictions as a failure in service
- The process doesn't consider the future impacts of climate change
- All provisions are within primary legislation which makes it inflexible and difficult to change

Reduced timescales to implement measures

We have learned in recent years that water scarcity develops very quickly and the time it takes to obtain a WSO would in some cases mean starting the application process before reservoirs had even dropped into a trigger level. This would need to take place before there is any real confirmed water shortage.

In England and Wales, water restrictions are consulted on every 5 years via drought plans, which provides the opportunity for any objections or representations to be made by the public and Ministers in advance of publication. While Ministerial permission is still required to implement a restriction, the process can be completed in less than two weeks.

Shorter timescales to implementing water restrictions will be required to allow Scottish Water to respond to an increased likelihood the need, and when drier weather is more apparent to the public.

Tiered approach to implementation

In the summer of 2022, SEPA followed the National Water Scarcity Plan to temporarily suspend abstractions licences as a result of significant water scarcity, the highest level in the plan. This was the first time that this measure was taken and it's tiered approach set expectations that something more serious may happen. This published plan provided a framework for decision makers and without it, Ministerial and public support for the environmental protection measures would have been more difficult to attain.

Similarly, published drought plans in England and Wales offer a tiered approach to the implementation of water restrictions for public water supplies. Their legislation requires drought plans to present a likely sequence of the types of measures that may be taken in order for water companies to meet their obligations. Furthermore, their legislation has flexibility written into it by prescribing that different measures can be taken for 'different cases, relating to different people, circumstances or places'.

Incorporating the impacts of climate change

At present, WSO can be applied for if Scottish Water can demonstrate that there is or there is a threat of water deficiency. However, we know that with the projected increase in hot and dry summers, due to the impacts of climate change, comes increased demand and water quality issues. It would be beneficial to be able to restrict water use in these circumstances to ease the pressure on infrastructure and to protect public health.

Given the scope for what may initiate the need for restrictions is proposed to be widened to include demand and water quality, it is proposed that they be called...

<u>Ability to set standards of performance in relation to drought measures</u> Stakeholder engagement has highlighted that customer support for WSO on the public supply may lead to criticism that Scottish Water could have done more to prevent restrictions being implemented. It is thought that any restrictions would be seen as a failure in service, yet Scottish Water have no prescribed performance standards or minimum levels of service in relation to water restrictions.

Research shows that water supplies will become more stressed due to climate change and as the impacts of climate change increase, there will be a need to change perceptions on how frequent water restrictions will be required. Applying performance standards to water restrictions would assist Scottish Water in reframing what the public should expect of their service in times of water scarcity.

Alignment with SEPA's water scarcity plan

Policy development to date has touched on the need for an all Scotland approach to managing water use, and the role that SEPA can play in declaring drought for the public water supply. Whilst it is agreed that Scottish Water should retain the duty to raise the need for restrictions in the public water supply, there is still a role for the environmental regulator to play. There will be instances where SEPA will seek restrictions being placed on water use if there is risk to the environment. This could be done as part of the conditions applied within a fast-track CAR licence and by providing SEPA with a parallel power to initiate water restrictions, in the event that the public water supply is impacting the environment. This would mean SEPA would have the power to act in the interest of the environment and leave Scottish Water to act in the interest of it's customers.

Policy Options

Reduced timescales, tiered approach to implementing water restrictions, setting service levels for public supply, incorporating the impacts of climate change and aligning with SEPA:

Option Description

Option 1 - Recommended

- <u>Duty</u> for Scottish Water to publish a drought framework every 6 years with details laid in Regulations
 - The framework must consult the public in advance of publication.
 - The document must outline measures that may be taken in certain circumstances
 - The framework will present measures and water use prioritisation in tiers, moving up in severity.
- Regulation making <u>power</u> for Ministers on the requirements of the drought framework
- <u>Function</u> for Scottish Water to set performance standards against certain measures (e.g. hosepipe ban, non-essential use ban) on request
- <u>Power</u> for Ministers to request performance standards to be applied within the drought framework
- <u>Power</u> for SEPA to request water restrictions on public water supply when there is evidence of environmental harm
 - SEPA would be required to evidence the need for restrictions following the same requirements as Scottish Water
 - SEPA would be required to consult with Scottish Water in advance of this request

Option 2

- <u>Duty</u> for Scottish Water to publish drought framework every 6 years and to set performance standards against proposed measures
- <u>Power</u> for Ministers to make Regulations on the requirements of the drought plan
- <u>Power</u> for SEPA to request water restrictions on public water supply when there is evidence of environmental harm

Benefits

Both options will:

- Provide a quicker and more flexible response to changing conditions
- Deliver a structured and gradual approach to implementing water use restrictions
- Set customer and public expectations on drought measures and what service Scottish Water are required to deliver
- Reduce reluctance to use measures as will be consulted on in advance
- Provides a national approach to protecting water resources by offering an environmental perspective

• Ensure that proportionate measures are taken when restrictions are required to protect environment from public water use

Option 1:

- Ensures there are water use restriction measures in place when the Bill as enacted
- Takes a softer approach to performance standards and will provide for them when there is a greater need

Option 2:

- Ensures there are water use restriction measures in place when the Bill is enacted
- Performance standards will set customer expectations on frequency of restrictions and removed sense of uncertainty over perceived failure in using restrictions

Risks

All options:

- Resource implications
- Scottish Water covers a much larger area than water companies in England and Wales. Possible issues applying drought framework to smaller systems.
- Work will be required to ensure the drought framework aligns with SEPA's water scarcity plan

Option 1:

- Less time to implement new ways of working
- Not applying service levels now may stifle the use of the new legislation and as the perception of failure in using them will remain

Option 2:

• Applying performance standards is potentially expensive but will depend on how far they go

Enclosure 18 – Scottish Water - Water Update Report -30/06/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **72%** (same as last week). There are **[redacted]** in drought trigger [redacted].

Regards

[redact]

Scottish Water Trusted to serve Scotland

18.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 19 - Email from SW with SGoRR briefing lines

From: [redacted] <[redacted]@SCOTTISHWATER.CO.UK> Sent: 05 July 2023 10:08 To: <[redacted]@gov.scot>; <[redacted]@gov.scot>; Jon Rathjen <Jon.Rathjen@gov.scot>; Peter Farrer <<u>Peter.Farrer@SCOTTISHWATER.CO.UK</u>> Subject: RE: Summer Resilience (Officials) Meeting - Agenda and Teams Link -1400 Thursday 6 July 2023

Hello,

Please find attached 3 minute update for Scottish Water.

Please note I will provide update tomorrow, not Peter Farrer as agenda.

Regards,

[redacted]

Scottish Water – Trusted to serve Scotland

Enclosure 19.1 – 3 minute brief for SGoRR

The Three Minute Brief should encourage factual and concise briefing which highlights **the main issues**, the **potential solutions**, and **future issues/ongoing risks**.

Date and Time: 5/07/2023 Brief number: 2

Produced By: Scottish Water Author: [redacted]

What? (e.g. What is the current situation? What information is known, or unknown) Too much detailed or unnecessary information is to be avoided.

An extended dry period has reduced water resource storage levels across Scotland to 72% (13% below the average for this time of year). This level held steady from the previous week due to more unsettled weather and rainfall. There are 25 systems in drought trigger (down 4 from the previous week) meaning we closely monitor and deploy various actions where necessary to safeguard supplies should the dry weather continue.

The demand for water from customers has reduced to levels seen through April and early May. This coincides with the change in weather and supports our belief that the additional demand for water relates, mainly, to outdoor use.

The need for tankers to support supplies has reduced and over the last week we have had between [redacted] tankers running each day. This is down from the peak of [redacted] on the 16th June.

We have supported local authorities by providing over 125 pallets of bottled water to private supplies since the start of June.

So what? (e.g. What does that mean? What are the impacts?)

The weather forecast suggests a continuation of unsettled weather in early July which will keep the demand for water closer to normal levels but without sustained rain for a number of days we expect water resource levels to reduce further.

This will require continued close monitoring and a focus on delivering against actions detailed in our drought management plans. Where necessary much of this work is underway to ensure we can maintain supplies for our customers.

With resource levels reducing we also must be aware of changing raw water quality and extra loading on to our treatment systems. Again, close monitoring is in place to alert us of any changes.

The reduction in demand has allowed many systems to recharge and it has also taken the pressure off our people who were having to work round the clock to ensure service was maintained. **Now what?** (e.g. What's being done about it? And what more could be done? Who would need involved?)

A Scottish Water incident team has been running for 6 weeks and is now sitting twice weekly. This will continue to coordinate and direct the action required to maintain supplies for our customers.

Should drier, warmer weather continue, and demand remain high we need to ask our customers, both domestic and non-domestic to use water more efficiently and consider how they use water in outdoor spaces. This ask may have to become more direct and we are working with others (SEPA/SG) to develop water shortage order paperwork should that be required.

Support from all areas to extend and land the message of using water efficiently is welcomed.

Enclosure 20 - Scottish Water - Water Update Report -07/07/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **79%** (8% down on last week). There are **[redacted]** in drought trigger [redacted]).

Regards

[redacted]

20.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 21 – Demand & Drought update 110723

Hi [redacted] and Jon,

Please find attached update from our Incident control meeting.

Summary position:

- Customer demand has returned to normal levels
- Continued unsettled weather has helped reduce demand and increase storage on most systems but not all. With the East side of country not benefiting from as much rainfall as others.
- We are continuing to prepare WSO's to take to ELT on 25th, however with recent projection updates we will no longer be preparing one for [redacted]. [redacted], [redacted]and [redacted] currently still progressing.
- Broadford continues to run under normal conditions and we have [redacted]. Likelihood of requiring approval for additional abstraction again this year is very low. We continue to work with SEPA and SNH on this matter.

If you have any question please get in touch.

Regards,

[redacted]

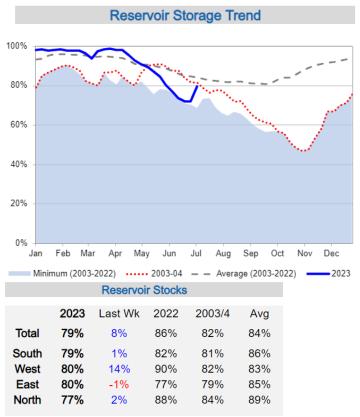
Scottish Water – Trusted to serve Scotland

Enclosure 21.1 - Demand and Drought Update

Exceptional demand update 11/07/2023

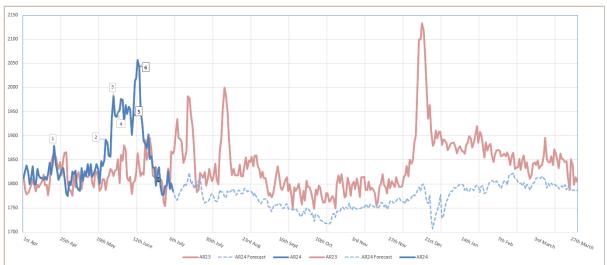
Reservoir Stocks

The Water Update report 7th July reported general stock levels increasing by 8% to 79%. This remains 5% below average but is a good recovery in many places. A large part of the increase relates to [redacted] which saw an increase of c25,000ML across 4 days. Rain has also fallen in many parts since so we believe the upward trend will continue this week.



Distribution Input

Demand continues to hold at lower levels very likely related to the unsettled weather. As of 11th July, we had [redacted] running across Scotland but some of them were supporting operational activities.



Weather Forecast

Unsettled conditions are set to be with us over the next week or two with spells of heavy rain across the country.

<u>Sites currently in drought trigger</u> The Water update report 7th July (issued 11/7/2023) highlights [redacted] in drought trigger [redacted].

[redacted]

Maximum Total Drought Triggers by Month and Year [redacted]

Key sites and actions

[redacted] see close monitoring on next page

Communications

Enquiries from the media have dropped off with the weather and some reports relating to SEPA water scarcity described an improving picture last week. This is set to continue so coverage will be low. Discussions continue with Scottish Government comms and PSG groups asking local authorities to amplify our messages and Ministers being encouraged to share on blogs and vlogs and some work being done around water shortage orders should they be required.

Water is always worth saving campaign continues to run on television and radio and plans in place for STV programme featuring Scottish Water in part to be aired in August.

Private Water Supplies

Since the start of June, we have supplied 125 pallets of bottled water to various local authorities across the country. No requests were received in the last week.

<u>Summary</u>

The change in weather and continued reduction in the demand for water has allowed many systems to recharge which is welcomed. Over the last fortnight we have seen the water resource storage trends increase and we believe this will continue this week and possibly into next.

Focus remains on drought management plan actions that need to be delivered in the coming weeks.

While there is some rain in the short term forecast, the situation will be monitored closely, and the incident command team will continue to meet weekly on Tuesday's and Thursday's.

We will no longer be preparing WSO for [redacted]. We will continue with [redacted] and [redacted] due to resource although likelihood has further reduced. [redacted] will also continue due to legal landowner issues.

[redacted]

Enclosure 22 - Water Shortage Order Meeting Minutes

Hello,

Thanks to everyone who attended last week's meeting on WSOs. I've drafted some minutes which hopefully captures all the key information. Do let me know if you would to see any changes.

Can I ask that one of the Scottish Water attendees confirms when the 30 day emergency storage for each proposed system will kick in if there is no significant rainfall please?

Thanks, [redacted]

Meeting	Water Shortage Order Requirements
Date & Time	5 th July 2023
Attendees	Scottish Government Jon Rathjen Emma Harding [redacted] [redacted] Scottish Water [redacted] [redacted] [redacted] [redacted]
	[redacted]

Enclosure 22.1 - Water Shortage Order Meeting Minutes

Purpose of meeting: To open discussions on the need for water shortage orders (WSOs) and the work that is being carried out to implement them if needed.

Background: It takes a minimum of 6 weeks to implement a water shortage order under current legislation (Water Resources Act 2013). This means for them to have an impact they need to be prepared in advance of knowing for sure if they will be required. A policy review of the current legislation is underway.

ltem No.	Notes
1.	 Preparation of WSOs Scottish Water WSOs being prepared for 4 systems – [redacted], [redacted], [redacted] , [redacted] Currently in Preliminary phase to understand what is required SW expecting to have draft WSOs developed by week ending 21st July Following sign off from SWs Executive Leadership Team, a 2-3 week public consultation period will be triggered Following that, it will likely take 1-2 weeks to get Ministerial approval Earliest that can have this is 6 weeks but may take up to 9 weeks depending on public consultation phase Viewed projections up to beginning of this week (3rd July) [redacted] - no change in storage levels and will have less than [redacted] by the Autumn unless there is sustained rainfall.

1

 [redacted] – improvement in storage levels and has moved away from the trajectory to emergency storage by the autumn (may be removed from list depending on rainfall) [redacted] - projecting some improvement for [redacted] but limited change for [redacted]. If WSOs are implemented, it will be to help replenish sources over autumn and winter. Scottish Government Agreed it makes sense to continue with preparing proposed WSOs and agreed it will be worthwhile to take these to SWs Executive Leadership Team towards the end of the month unless there is significant recovery in reservoir levels. Need some analysis on how much difference we think a WSO will make to storage levels and how severe the measures need to be. ACTION FOR SW Comms and risk appetite Scottish Water Comms is proving difficult as there has been rainfall across country so getting across message that there is also scarcity and a need for restrictions will be a challenge Comms is not thought to be having any impact. SW have strengthened message year on year and rates of consumption have increased. Creating a compelling narrative for stakeholders on risk is tricky. Some work is required on risk appetite. There is reputational risk of implementing restrictions. For WSOs its important to say that we're not running out of water now and that our systems are designed to cope with conditions that match the worst historic drought. That is represented very broadly with a 1 in 150 event/level of service What level of risk are we willing to take? [redacted] and [redacted] will be bordering on [redacted]. Ministers may be happet to accept that and not grant a WSO as it's not the same as the worst historic drought conditions. There is a need to build the risk appetite and provide a more coherent picture for Ministers. ACTION FOR SG SEPA There is reputational risk which curren		
 Scottish Water Comms is proving difficult as there has been rainfall across country so getting across message that there is also scarcity and a need for restrictions will be a challenge Comms is not thought to be having any impact. SW have strengthened message year on year and rates of consumption have increased. Creating a compelling narrative for stakeholders on risk is tricky. Some work is required on risk appetite. There is reputational risk of implementing restrictions. For WSOs it's important to say that we're not running out of water now and that our systems are designed to cope with conditions that match the worst historic drought. That is represented very broadly with a 1 in 150 event/level of service What level of risk are we willing to take? [redacted] and [redacted] will be bordering on [redacted]. Ministers may be happy to accept that and not grant a WSO as it's not the same as the worst historic drought conditions. There is a need to build the risk appetite and provide a more coherent picture for Ministers. ACTION FOR SG SEPA There is reputational risk which currently sits with SEPA if a WSO is not confirmed. Lots of pushback from fisheries communities on possible restrictions on CAR licences and lack of action on public supplies. Internal comms with Ministers will be as important as public comms. They will be signing off WSO post consultation. Will need to have response to areas of scrutiny Leakage – need a report showing the year-on-year reduction in leakage rates over the last decade, and the positive trajectory for the years ahead. Need to be able to show that leakage is being address and improvement here won't make dramatic difference in the short-term. ACTION FOR SW 		 away from the trajectory to emergency storage by the autumn (may be removed from list depending on rainfall) [redacted] - projecting some improvement for [redacted] but limited change for [redacted]. If WSOs are implemented, it will be to help replenish sources over autumn and winter. Scottish Government Agreed it makes sense to continue with preparing proposed WSOs and agreed it will be worthwhile to take these to SWs Executive Leadership Team towards the end of the month unless there is significant recovery in reservoir levels. Need some analysis on how much difference we think a WSO will make to storage levels and how severe the measures need to be. ACTION FOR
 Scottish Water Comms is proving difficult as there has been rainfall across country so getting across message that there is also scarcity and a need for restrictions will be a challenge Comms is not thought to be having any impact. SW have strengthened message year on year and rates of consumption have increased. Creating a compelling narrative for stakeholders on risk is tricky. Some work is required on risk appetite. There is reputational risk of implementing restrictions. For WSOs it's important to say that we're not running out of water now and that our systems are designed to cope with conditions that match the worst historic drought. That is represented very broadly with a 1 in 150 event/level of service What level of risk are we willing to take? [redacted] and [redacted] will be bordering on [redacted]. Ministers may be happy to accept that and not grant a WSO as it's not the same as the worst historic drought conditions. There is a need to build the risk appetite and provide a more coherent picture for Ministers. ACTION FOR SG SEPA There is reputational risk which currently sits with SEPA if a WSO is not confirmed. Lots of pushback from fisheries communities on possible restrictions on CAR licences and lack of action on public supplies. Internal comms with Ministers will be as important as public comms. They will be signing off WSO post consultation. Will need to have response to areas of scrutiny Leakage – need a report showing the year-on-year reduction in leakage rates over the last decade, and the positive trajectory for the years ahead. Need to be able to show that leakage is being address and improvement here won't make dramatic difference in the short-term. ACTION FOR SW 	2	Comms and risk appetite
 There is reputational risk which currently sits with SEPA if a WSO is not confirmed. Lots of pushback from fisheries communities on possible restrictions on CAR licences and lack of action on public supplies. Internal comms with Ministers will be as important as public comms. They will be signing off WSO post consultation. Will need to have response to areas of scrutiny Leakage – need a report showing the year-on-year reduction in leakage rates over the last decade, and the positive trajectory for the years ahead. Need to be able to show that leakage is being address and improvement here won't make dramatic difference in the short-term. ACTION FOR SW 		 Comms is proving difficult as there has been rainfall across country so getting across message that there is also scarcity and a need for restrictions will be a challenge Comms is not thought to be having any impact. SW have strengthened message year on year and rates of consumption have increased. Creating a compelling narrative for stakeholders on risk is tricky. Some work is required on risk appetite. There is reputational risk of implementing restrictions. For WSOs it's important to say that we're not running out of water now and that our systems are designed to cope with conditions that match the worst historic drought. That is represented very broadly with a 1 in 150 event/level of service What level of risk are we willing to take? [redacted] and [redacted] will be bordering on [redacted]. Ministers may be happy to accept that and not grant a WSO as it's not the same as the worst historic drought conditions. There is a need to build the risk appetite and provide a more coherent
Scottish Government		 There is reputational risk which currently sits with SEPA if a WSO is not confirmed. Lots of pushback from fisheries communities on possible restrictions on CAR licences and lack of action on public supplies. Internal comms with Ministers will be as important as public comms. They will be signing off WSO post consultation. Will need to have response to areas of scrutiny Leakage – need a report showing the year-on-year reduction in leakage rates over the last decade, and the positive trajectory for the years ahead. Need to be able to show that leakage is being address and improvement here won't make dramatic difference in
		Scottish Covernment
		Scotlish Government

	 Need to involve SG comms to start working the public messaging. There are requirements in the legislation that require a level of comms throughout the WSO process in addition to telling the story required in selling the WSO to the public and to Ministers. ACTION FOR SG Need to also develop narrative for Ministers. ACTION FOR SG
3.	Domestic usage
	 Greater demand for water reflecting that there are more bathrooms, fewer people per property, more properties and more growth Sits against what is happening in Europe as people really see the drought issues first hand there and can see the restrictions coming Having a regional WSO will signal the seriousness of the situation Need to manage comms on this and emphasis the point on dry winters/spring, that this is all about climate change and protecting winter resources. ACTION FOR SG AND SW
4.	Non-essential use
	 Comments that some CAR licence holders (namely golf courses) that have had restrictions placed on them have switched onto public supply. In proposed WSOs need to use restrictions to promote more responsible management Need to look at tiers of non-essential use to avoid economic impacts. ACTION FOR SG AND SW. Is there an opportunity to engage with licenced providers and non-domestic customers on using water more wisely? What is the role of SW Business Stream during a WSO? How do users interpret information that's given? ACTION FOR SW and SG
5.	Closing remarks
	 SG officials are meeting weekly with SW and will keep abreast with the developments.
6.	Summary of actions
	 Scottish Water Analysis on the impacts a WSO might have on storage levels and a proposal on how severe the measures may need to be Leakage report Asses tiers of non-essential use Plan for engaging with licence providers and non-domestic market via business stream Public comms narrative for WSO with SG
	Scottish Government
	 Determine risk appetite for WSO Develop internal and external comms narrative with SW Assess tiers of non-essential use with SW Support SW in engaging with non-domestic customers
Enclosure	23 - Scottish Water - Water Update Report -07/07/2023

Please see attached for the latest edition of the Water Update Report.

Total reservoir storage is currently **84%** (up 4% from last week). There are **[redacted]** in drought trigger [redacted]

Regards

[redacted]

23.1 – Water Update Report

Attachment redacted under clause 11(5a)

Enclosure 24 – Demand & Drought update 190723

Jon & [redacted],

Further to 3 minute briefing i have shared please find attached more detail performance update on Demand & Drought event.

If you have any questions or concerns please let me know.

Regards,

[redacted]

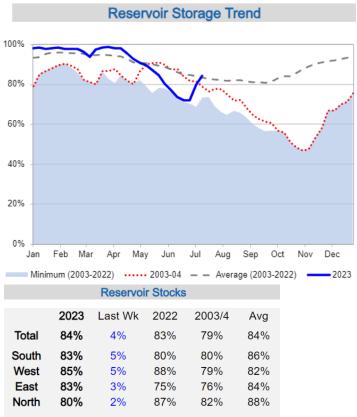
Scottish Water – Trusted to serve Scotland

Enclosure 24.1 - Demand and Drought Update

Exceptional demand update 19/07/2023

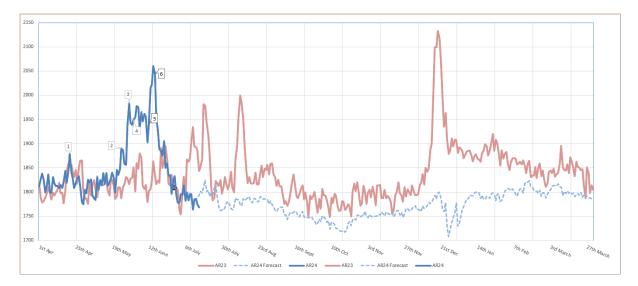
Reservoir Stocks

The Water Update report 14th July reported general stock levels increasing by 4% to 84%. This brings us back to the average for the time of year dues to recovery in many places. Unsettled weather is to continue through July so this may improve further.



Distribution Input

Demand continues to hold at lower levels very likely related to the unsettled weather. Current levels are some of the lowest we have seen since before covid restrictions.



Weather Forecast

Unsettled conditions are set to be with us over the next week or two. As we move into August more settled conditions are expected.

Sites currently in drought trigger

The Water update report 14th July (issued 17/7/2023) highlights [redacted] in drought trigger [redacted].

[redacted]

Key sites and actions

[redacted]

Communications

There have been no enquiries from the media and only a few articles relating to an improved SEPA water scarcity position. Work continues around water shortage orders should they be required.

Water is always worth saving campaign continues to run on television and radio.

[redacted] blog was published on the 14th

Private Water Supplies

Since the start of June, we have supplied 125 pallets of bottled water to various local authorities across the country. No requests were received in the last week.

Summary

The change in weather and continued reduction in the demand for water has allowed many systems to recharge which is welcomed. Over the last three weeks we have seen the water raw water storage trends increase and the weather forecast remains unsettled.

Focus remains on drought management plan actions that may be required should conditions change. The situation will be monitored closely, and the incident command team will continue to meet weekly on Tuesday's and Thursday's. [redacted]

The requirement for WSO is now very low but the process is still going to be tested for [redacted] and [redacted] at ELT on 25th July

[redacted]